

Call for Abstracts

CONSEC24



10th International Conference on
CONcrete under **SE**vere **C**onditions (CONSEC)
– Environment & Loading
<https://consec24.com>

**Bridging structural and
materials technologies**

**September 25 - 27, 2024,
IITM Research Park, IIT Madras, Chennai, INDIA**

CONSEC conferences focus on the advancements in the areas related to the design, construction, testing, and preservation of various construction materials and systems exposed to severe environmental and loading conditions. Earlier CONSECs were held in Japan (1995), Norway (1998), Canada (2001), South Korea (2004), France (2007), Mexico (2010), China (2013), Italy (2016), and Brazil (2019). Now, the *Centre of Excellence on Technologies for Low-Carbon and Lean Construction (TLC2)* at the Indian Institute of Technology Madras feels proud and privileged to organize the 10th CONSEC in Chennai, India (named as CONSEC24). We have also planned pre- and post-conference workshops on allied topics. **CONSEC24 will provide a single platform for exchanging ideas in both focussed and holistic manner for the design, construction and conservation of reinforced concrete structures experiencing severe conditions.** We invite students, researchers, faculty members, and practitioners working in the relevant areas of **structural engineering and construction materials** to attend CONSEC24 and make it a huge success.

Conference themes and subthemes

Advanced materials for severe conditions

- Cements and binders (SCMs)
- Chemical admixtures
- Hydration and microstructure
- Metallic and non-metallic reinforcement (fibres, mesh, bars, strands)
- Alternative aggregates

Lab/field testing and characterisation

- Material characterisation tests
- Accelerated tests and long-term performance
- Non-destructive testing
- Forensics and condition assessment
- Naturally deteriorated systems

Repair and strengthening materials and methods

- Preventive maintenance
- Electrochemical repair
- Waterproofing & coating
- Grouts and grouting methods
- Repair mortar and concrete
- Residual capacity assessment
- Strengthening techniques

Damage, deterioration and transport properties

- ASR, sulphate or acid attack
- Chloride ingress
- Carbonation and leaching
- Corrosion of reinforcement
- Creep and shrinkage
- Fatigue and fracture

Service life, reliability, sustainability and resilience

- Simulation of residual capacity
- Service life and durability
- Reliability and resilience
- Sustainability and life cycle assessment (LCA)
- Standardization and codes

Special concretes and construction techniques

- FRC, TRC, HPC, UHPC, SHC
- Precast concrete
- 3D-concrete printing
- Underwater construction
- Cold-weather construction
- High-rise concrete pumping

Plenary Speakers



Prof. Alexandra BERTRON

INSA Toulouse, France

Topic: The behaviour of SCM and low-CO₂ binders and systems in sewer networks



Prof. Stefano PAMPANIN

Sapienza University of Rome, Italy

Topic: Designing precast concrete structures for earthquake resistance - Past, present, and future



Prof. Jose Ivan ESCALANTE-GARCIA

CINVESTAV Saltillo, Mexico

Topic: Novel alkali activated binders based on precursors of limestone and recycled pulverized concrete



Prof. Giovanni PLIZZARI

University of Brescia, Italy

Topic: Structural repair of tunnel segments



Prof. Paolo GARDONI

University of Illinois Urbana-Champaign, US

Topic: Sustainability and resilience of large-scale concrete bridge infrastructure systems



Prof. Manu SANTHANAM

IIT Madras, India

Topic: The way forward on performance specifications for achieving durable concrete structures



Prof. Ipei MARUYAMA

The University of Tokyo, Japan

Topic: Performance evaluation of concrete under specific conditions for nuclear reactor buildings



Prof. David TREJO

Oregon State University, US

Topic: Estimation of service life of concrete structures - challenges and way forward



Prof. Robert MELCHERS

The University of Newcastle, Australia

Topic: Resilience of reinforced concrete structures in corrosive conditions

Bridging structural and materials technologies

Tentative Keynote Speakers

- Prof. Hans Beushausen, Univ. of Cape Town, South Africa
- Prof. Enrico Sassoni, University of Bologna, Italy
- Prof. Wolfram Schmidt, BAM, Germany
- Prof. Juhuyuk Moon, Seoul National University, South Korea
- Prof. Prannoy Suraneni, University of Miami, USA
- Dr. David Tepke, SKA Consulting Engineers, USA
- Mr. David Whitmore, Vector Corrosion Technologies, Canada
- Prof. Sylvia Kessler, Helmut Schmidt University, Germany
- Prof. Sreejith Nanukuttan, Queen's University of Belfast, UK
- Dr. Ashish Sapre, Walter P Moore, India
- Dr. Harshavardhan Subbarao, Construma Consultants, India
- Prof. Hong Wong, Imperial College London, UK
- Prof. Marijana Serdar, University of Zagreb, Croatia
- Prof. Burkan Isgor, Oregon State University, USA
- Prof. Pedro Castro-Borges, Avanzados del IPN Unidad Mérida, Mexico
- Prof. Tutikian, Univ. do Vale do Rio dos Sinos, Brazil
- Mr. Peter Emmons CEO, Structural Technologies, USA
- Prof. Liberato Ferrara, Politecnico di Milano, Italy
- Dr. Asit N Baxi, Baxi Engineering Inc., USA
- Prof. Srirama D. Nair, Cornell University, USA
- Prof. Pang Sze Dai, NUS, Singapore
- Mr. Terrence F. Paret, WJE, USA
- Dr. Kunal Kupwade-Patil, WR Meadows, Chicago, USA

Other Speakers and Attendees

- 230+ abstracts from across the world has been received so far
- By March 31, 2024, we anticipate to receive another 100+ abstracts from industry and academia.
- About 600+ structural and materials engineers are expected to attend the conference to provide huge networking and marketing opportunities.

Important Dates

Submission of 250-word Abstract	March 31, 2024
Acceptance of Abstract	April 15, 2024
Submission of 4-page Extended Abstract / 8-page Full Paper	April 30, 2024
Early-Bird Registration	April 30, 2024
Submit application for Indian Conf. Visa, if needed	April 30, 2024
Acceptance of 4-page Extended Abstract / 8-page Full Paper (optional)	May 1, 2024

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Type of delegate	Conference Registration fee			
	Before April 30 th , 2024		After April 30 th , 2024	
	Indian (INR)	Foreign (USD)	Indian (INR)	Foreign (USD)
Student Authors	14,000	450	18,000	550
Student Authors (Subsidized)	8,000	250	12,000	350
Regular	25,000	800	30,000	900
Discounted Regular (RILEM/ICI members)	22,000	700	27,000	800
Subsidized	15,000	450	20,000	550

The Registration Fee entitles the delegates to attend all technical sessions of the conference, exhibition, lunch, reception and banquet, and receive the proceedings.

- For full-time students wanting to attend only the pre- and post-conference workshops, a fee of INR 2000 per workshop is applicable. For others, INR 4000 per workshop is applicable.
- Students without an abstract for paper/poster presentations will be considered as Regular category.

***Countries eligible for subsidized fee:** Albania; Algeria; Angola; Argentina; Bangladesh; Bosnia and Herzegovina; Botswana; Brazil; Bulgaria; Burkina Faso; Cambodia; Cameroon; Chile; Colombia; Congo; Costa Rica; Croatia; Cuba; Dominican Republic; Ecuador; Egypt; Estonia; Ethiopia; Federal Republic of Nigeria; Georgia; Ghana; Guatemala; Hungary; India; Indonesia; Iran; Iraq; Ivory Coast; Jordan; Kazakhstan; Kenya; Latvia; Lebanon; Lesotho; Libya; Lithuania; Macedonia; Malawi; Malaysia; Mauritius; Mexico; Montenegro; Morocco; Mozambique; Myanmar; Nepal; Pakistan; Paraguay; Peru; Poland; Philippines; Republic of Moldova; Romania; Russian Federation; Senegal; Serbia; South Africa; Sri Lanka; Syrian Arab Republic; Tanzania; Thailand; Togo; Tunisia; Turkey; Ukraine; United Republic of Tanzania; Uruguay; Venezuela; Vietnam; Yemen; Zimbabwe, and other countries with similar or lower GDP.

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Conference Venue

 IIT Madras Research Park
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